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## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Currently amended) An optical subassembly comprising:

a ferrule having a capillary extending axially through said ferrule, said capillary satisfying a predetermined tolerance for the dimensions of said capillary; and

at least four optical fibers positioned inside of said capillary, said optical fibers satisfying predetermined tolerances for core concentricity and the outer dimension of the cladding, wherein the tolerance for said core concentricity is equal to or less than about 1.0  $\mu$ m.



- 2. (Original) The optical subassembly of claim 1, wherein the tolerance of said capillary is less than about  $+/-2.0 \mu m$ .
- 3. (Original) The optical subassembly of claim 1, wherein the tolerance of said capillary is less than about  $\pm 1.0 \, \mu m$ .
- 4. (Original) The optical subassembly of claim 1, wherein the tolerance of said capillary is less than about  $\pm -0.5 \, \mu m$ .
- 5. (Original) The optical subassembly of claim 2, wherein the cross section of the capillary is substantially a parallelogram and each side of said capillary is about  $(2*D)+2.0 \mu m$  where D is the diameter of said optical fibers.
- 6. (Original) The optical subassembly of claim 3, wherein the cross section of the capillary is substantially a parallelogram and each side of said capillary is about  $(2*D)+1.0 \mu m$  where D is the diameter of said optical fibers.

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7. (Original) The optical subassembly of claim 4, wherein the cross section of the capillary is substantially a parallelogram and each side of said capillary is about  $(2*D)+0.5 \mu m$  where D is the diameter of said optical fibers.

8. (Currently amended) The optical subassembly of claim 2, wherein the cross section of the capillary is substantially a rectangle and a first and a second sides of said capillary are each about  $(2*D)+2.0 \mu m$  where D is the diameter of said optical fibers.

9. (Currently amended) The optical subassembly of claim 3, wherein the cross section of the capillary is substantially a rectangle and a first and a second sides of said capillary are each about  $(2*D)+1.0 \mu m$  where D is the diameter of said optical fibers.

10. (Currently amended) The optical subassembly of claim 4, wherein the cross section of the capillary is substantially a rectangle and a first and a second sides of said capillary are each about  $(2*D)+0.5 \mu m$  where D is the diameter of said optical fibers.

11. (Currently amended) The optical subassembly of claim 8, wherein a third and a fourth sides are each about  $(2*D)+\Delta+2.0 \mu m$  where D is the diameter of said optical fibers, and  $\Delta$  is the minimum distance between the surfaces of adjacent fibers.

12. (Currently amended) The optical subassembly of claim 9, wherein a third and a fourth sides are each about  $(2*D)+\Delta+1.0 \mu m$  where D is the diameter of said optical fibers, and  $\Delta$  is the minimum distance between the surfaces of adjacent fibers.

13. (Currently amended) The optical subassembly of claim 10, wherein a third and a fourth sides are each about  $(2*D)+\Delta+0.5 \mu m$  where D is the diameter of said optical fibers, and  $\Delta$  is the minimum distance between the surfaces of adjacent fibers.

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14. (Currently amended) The optical subassembly of claim 8, wherein a third and a fourth sides are each about  $(3*D)+2.0 \mu m$  where D is the diameter of said optical fibers.

15. (Currently amended) The optical subassembly of claim 9, wherein a third and a fourth sides are each about  $(3*D)+1.0 \mu m$  where D is the diameter of said optical fibers.

16. (Currently amended) The optical subassembly of claim 10, wherein a third and a fourth sides are each about  $(3*D)+0.5 \mu m$  where D is the diameter of said optical fibers.

17. (Currently amended) The optical subassembly of claim 1, wherein the tolerance for said core concentricity is 1.0  $\mu$ m, the tolerance for the diameter of said fibers is 1.0  $\mu$ m, and the tolerance for ovality of said fibers is 0.8 percent.

18. (Original) The optical subassembly of claim 1, wherein the tolerance for said core concentricity is 0.5  $\mu$ m, the tolerance for diameter of said fibers is 0.5  $\mu$ m, and the tolerance for ovality of said fibers is 0.4 percent.

19. (Original) The optical subassembly of claim 1, wherein the tolerance for said core concentricity is 0.1  $\mu$ m, the tolerance for diameter of said fibers is 0.1  $\mu$ m, and the tolerance for ovality of said fibers is 0.12 percent.

20. (Original) The optical subassembly of claim 1, wherein said ferrule is formed from two wafers and said capillary is formed from two matching grooves in said two wafers.

21. (Currently amended) The optical subassembly of claim 20, wherein each of said wafers further comprises at least one alignment groove which forms an alignment capillary when the wafers are aligned.

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22. (Original) The optical subassembly of claim 21, wherein said ferrule further comprises at least one alignment rod positioned in said alignment capillary.

23. (Currently amended) An-The optical subassembly of claim 22 comprising:

a ferrule having a capillary extending axially through said ferrule, said capillary satisfying a predetermined tolerance for the dimensions of said capillary, wherein said ferrule is formed from two wafers and said capillary is formed from two matching grooves in said two wafers, wherein each of said wafers further comprise at least one alignment groove which forms an alignment capillary when the wafers are aligned, wherein said ferrule further comprises at least one alignment rod positioned in said alignment capillary; and

at least four optical fibers positioned inside of said capillary, said optical fibers satisfying predetermined tolerances for core concentricity and the outer dimension of the cladding,

wherein the tolerance for the diameter of the alignment rod is equal to or less than about 2.0  $\mu m$ .

- 24. (Currently amended) The optical subassembly of claim  $\frac{2223}{4}$ , wherein the tolerance for the diameter of the alignment rod is 1.0  $\mu$ m.
- 25. (Currently amended) The optical subassembly of claim  $\frac{2224}{4}$ , wherein the tolerance for the diameter of the alignment rod is 0.5  $\mu$ m.
- 26. (Currently amended) A fiber optic subassembly comprising:

a ferrule having at least two fiber capillaries extending axially through said ferrule, said capillaries satisfying predetermined tolerances for the dimensions of said capillaries; and

at least four optical fibers positioned inside said capillaries, said optical fibers satisfying predetermined tolerances for core concentricity and the outer dimension of the cladding of said fibers, wherein the tolerance for said core concentricity is equal to or less than about 1.0  $\mu$ m.

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27. (Original) The fiber optic subassembly of claim 26, wherein the tolerance of said capillaries is less than about  $\pm -2.0 \, \mu \text{m}$ .

28. (Original) The fiber optic subassembly of claim 26, wherein the tolerance of said capillaries is less than about  $\pm 1.0 \mu m$ .

29. (Original) The fiber optic subassembly of claim 26, wherein the tolerance of said capillaries is less than about  $\pm 1.05 \mu m$ .

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30. (Original) The fiber optic subassembly of claim 27, wherein the cross section of at least one of the capillaries is substantially a rectangle and two sides of said at least one capillaries are each about  $(2*D)+\Delta+2.0 \mu m$  where D is the diameter of said optical fibers and  $\Delta$  is the minimum distance between the cladding of adjacent fibers.

31. (Original) The fiber optic subassembly of claim 28, wherein the cross section of at least one of the capillaries is substantially a rectangle and two sides of said at least one capillaries are each about  $(2*D)+\Delta+1.0 \mu m$  where D is the diameter of said optical fibers and  $\Delta$  is the minimum distance between the cladding of adjacent fibers.

32. (Original) The fiber optic subassembly of claim 29, wherein the cross section of at least one of the capillaries is substantially a rectangle and two sides of said at least one capillaries are each about  $(2*D)+\Delta+0.5 \mu m$  where D is the diameter of said optical fibers and  $\Delta$  is the minimum distance between the cladding of adjacent fibers.

33. (Currently amended) The fiber optic subassembly of claim 27, wherein the capillaries <u>have</u> cross-sections that are substantially oval.

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34. (Currently amended) The fiber optic subassembly of claim 26, wherein the tolerance for said core concentricity is less than about 1.0  $\mu$ m, the tolerance for the diameter of said fibers is less than about 1.0  $\mu$ m, and the tolerance for ovality of said fibers is less than about 0.8 percent.

35. (Original) The fiber optic subassembly of claim 26, wherein the tolerance for said core concentricity is less than about 0.5  $\mu$ m, the tolerance for diameter of said fibers is less than about 0.5  $\mu$ m, and the tolerance for ovality of said fibers is less than about 0.4 percent.

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36. (Original) The fiber optic subassembly of claim 26, wherein the tolerance for said core concentricity is less than about 0.1  $\mu$ m, the tolerance for diameter of said fibers is less than about 0.1  $\mu$ m, and the tolerance for ovality of said fibers is less than about 0.12 percent.

37. (Original) The fiber optic subassembly of claim 26, wherein said capillaries are formed from two wafers, each of said wafers comprising matching grooves which form the capillaries when the wafers are aligned.

38. (Original) The fiber optic subassembly of claim 37, wherein said wafers further comprise matching alignment grooves.

39. (Original) The fiber optic subassembly of claim 38, further comprising alignment rods positioned in said alignment grooves.

- 40. (Canceled)
- 41. (Canceled)
- 42. (Canceled)
- 43. (Canceled)

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44. (Canceled)

(Currently amended) A fiber ferrule for use in multiple-port optical devices, wherein said ferrule comprises a cylindrical glass rod comprising at least one capillary, and wherein the capillary configuration is selected from the group consisting of a rounded square, a rounded rectangle, a dual-oval, a four-circular capillary, a two-wafer-type formed from two wafers comprising matching grooves which form capillaries when the wafers are aligned, and a capillary using at least one alignment washer.

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46. (Currently amended) The fiber ferrule of claim 45, wherein said at least one capillary surrounds at least two-a first pair of optical fibers and a second pair of optical fibers, each fiber having a core, each of said pairs first pair of fibers defining a first separation distance between the centers of the cores of the first pair of fibers, the second pair of fibers defines a second separation distance between the centers of the cores of the second pair of fibers, and said capillary supports said fibers such that the first and second separation distances for each pair of fibers is are substantially equal to one another within a tolerance of about 0.5 μm.

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47. (Currently amended) The fiber ferrule of claim 45, wherein the tolerance for the dimensions of said capillary are is 2.0  $\mu$ m.

A8. (Currently amended) The fiber ferrule of claim A7, wherein the tolerance for the dimensions of said capillary are is 1.0  $\mu$ m.

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49. (Currently amended) The fiber ferrule of claim 48, wherein the tolerance for the dimensions of said capillary are is 0.5  $\mu$ m.